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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,235	04/11/2007	Erwann Lavarec	NY-GRYN 234-US	1947
24972	7590	11/12/2008		
FULBRIGHT & JAWORSKI, LLP 666 FIFTH AVE NEW YORK, NY 10103-3198			EXAMINER OLSEN, LIN B	
			ART UNIT	PAPER NUMBER
			3661	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,235	<b>Applicant(s)</b> LAVAREC, ERWANN	
	<b>Examiner</b> LIN B. OLSEN	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on November 6, 2006 was filed before the mailing date of the first action on merits. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.

- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities:

In paragraph 151 of the printed publication, reference numbers 414 and 400 in Figure 4c are referred to, but these reference numbers are not on the drawing.

In paragraph 161 of the printed publication, the examiner suggests that the second instance of reference number 501 should be 505.

Appropriate correction is required.

### ***Drawings***

The drawings are objected to because Figure 4c does not show reference numbers 414 and 400 that are referred to show in paragraph 151 of the printed publication.

Drawing 5 is objected to because none of the blocks are labeled, and as such the drawings do not aid in understanding the invention.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 9 and 10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 9 and 10, dependent on multiple dependent claims 3 and 7 not been further treated on the merits.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are to a process used to scan a surface however, the claims do not define the steps of the process in conformance with office practice. The claims are generally narrative and indefinite, failing to conform to current U.S. practice. They appear to be a literal translation into English from a foreign document.

Claims 1 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting an essential step, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: The process and device do not recite a step to pass to the current strip from the initialization strip by laterally offsetting the trajectory over a distance that is more or less equal to the predetermined width (d) of the initialization strip.

Claims 6-8 are rejected for incorporating the above errors from the parent claims by dependency.

***Allowable Subject Matter***

Claims 1 and 5 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 2-4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: While there are many algorithms to scan a surface, the cited prior art neither teaches nor implies that during an initial traverse of a strip, said process also includes, during the said initial stage, a stage to calculate the length ( $L_0$ ) of the initialisation strip from the geometrical data (angles and lengths) characterising the geometry of the initialisation strip. Further the prior art does not suggest the process also includes the following successive stages:

c1) a stage (to predetermine the length ( $L^*_{.i}$ ) of the said current strip from the geometrical data characterising the geometry of the said previous strip,

c2) a stage to traverse, the said current strip in its entirety running along the said previous strip until the said current strip presents an angular rupture whose value is outside the limits of a predetermined range of permitted values,

c3) a stage to determine the length ( $L_i$ ) of the said current strip from the geometrical data obtained during the journey over the said current strip and characterising the geometry of the said current strip,

c4) a stage to compare the predetermined length ( $L^*_{.i}$ ) with the determined length ( $L_i$ ) so that:

if the predetermined length ( $L^*_{.i}$ ) is more or less equal to the determined length ( $L_i$ ), then stage c5) of the process is implemented,

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if the predetermined length ( $L^*_{.i}$ ) is greater than the determined length ( $L_i$ ), it is assumed that an obstacle is present on the current strip, and stage c6) of the process is implemented,

if the predetermined length ( $L^*_{.i}$ ) is less than the determined length ( $L_i$ ), it is assumed that the physical barrier comprises a discontinuity in the said current strip, and stage c7) of the process is implemented.

Further while stage c5, the stage of following a back and forth pattern covering area is well know, stages c6 and c7

c6) if the obstacle extends over the width ( $d$ ) of the current strip, then stage is used to pass to the next strip by laterally offsetting the trajectory over a distance that is more or less equal to the predetermined width ( $d$ ) of one of the said current strips,

a stage to traverse the next strip in the direction opposite to that of the current strip,

a stage to iterate the process from stage c1), as many times as necessary in order to scan the complex surface, the former current strip now being considered to be the new previous strip while the next strip is now considered to be the new current strip,

if the obstacle does not extend over the whole width ( $d$ ) of the current strip,

a stage to skirt the obstacle by continuing the journey over the current strip,



a stage to iterate the process from stage c3), as many times as necessary in order to scan the complex surface,

c7) a stage to continue the journey over the current strip, running along the physical barrier or the obstacle and following the discontinuity until an angular rupture is encountered whose value is outside the limits of a predetermined range of permitted values,

if the angular rupture thus encountered corresponds to a peripheral barrier, particularly a physical barrier or an obstacle with a concave shape, then a stage) to enter into the said concave feature and to iterate the process from a) as many times as necessary in order to scan the complex surface,

if the angular rupture thus encountered corresponds to a peripheral barrier, particularly a physical barrier or an obstacle that does not have a concave feature, then a stage to iterate the process from stage c1) as many times as necessary in order to scan the complex surface.

are not previously discussed

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin B Olsen/  
Examiner, Art Unit 3661

/Thomas G. Black/  
Supervisory Patent Examiner, Art Unit 3661